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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,253	04/24/2001	Francis Bourrieres	N48 2-9735	3338
490	7590	06/30/2004	EXAMINER	
VIDAS, ARRETT & STEINKRAUS, P.A. 6109 BLUE CIRCLE DRIVE SUITE 2000 MINNETONKA, MN 55343-9185			TRINH, MINH N	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/830,253	Applicant(s) BOURRIERES, FRANCIS	
	Examiner Minh Trinh	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-15, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-15, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/30/01, 3/18/03, 4/23/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I (claims 10-15 and 19-20) in the reply filed on 4/15/04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Thus, claims 16-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/15/04.

An Office Action on the merits of claims 10-15 and 19-20 as follows:

The title

2. The title of the invention is too long. The following title is suggested: "A method for producing module" or the like.

Claim Objections

3. "Method" (claim 10, line 1) should be: -- A method--, to reflect the independent formats, and

4. "Method " (claims 11-15 and 19-20) should be changed to: -- The method" to reflect the dependent claim formats. Appropriate correction is required.

Claim Rejections - 35 USC § 112

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5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 10-15 and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following are examples:

a) The scope of the claims is unclear due to the fact that the scope is drawn to a method for producing an electronic module and somehow there is no positive method limitation have been cited in the claims i.e., is deposited . . . , are transferred, etc., are not positive method limitations.

b) Also, it is not clear whether "a printed circuit board 3"(claim 10, line 4) and/or "an appropriate device" (claim 10, line 9) is part of the forming electronic module as described in the preamble (see claim 10, line 1-4). Please clarify.

c) Note that in the method claims, the use of "the method comprising" after the preamble, and the steps: i.e., depositing . . . transferring, connecting, and forming " in the body of the claim are suggested as so to positively recite the method invention.

d) The phrases: "the same surface" (claim 10, line 6); the corresponding mounting land" (claim 10, line 7); "the same side "(claim 10, line 3, 9), "the circuit "(claim 13, line 1), etc., lack proper antecedent basis.

e) "the said" (claim 10, line 7) should be changed to: --said--.

f) It is not known what is "them" being referring to (see claim 10, line 9).

g) "the circuit " (claim 13, line 1) lacks antecedent basis.

h) The phrase: "wherein it makes it possible to . . ." (claim 13 and 14, lines 1-2) is not understood.

i) "the side of the module opposite the side" is very confusing it is not known exactly what applicant is being referring to. Please be more specific. Note that the module if in rectangular configuration having at least 4 sides and 2 surfaces.

j) Regarding claims 13-15. It is noted that no art rejections have been applied to these, since there are a great deal of confusion an uncertainty as to the proper interpretation of the claims limitations. Therefore, it would not be proper to reject such claims on the basis of prior art. See MPEP 2173.06.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 10 and 19 as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by Acocella et al (US 5,675,889).

Acocella et al disclose a method for producing an electronic module as recited in the claims of the present invention comprising steps: depositing solder cream 13 on the substrate 11 for connecting to the components and transferring the components to the corresponding mounting lands (see Figs. 4 and 6); the connecting the components to the substrate 11. Note that the components as mention above are readable on 10,

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18, etc. Therefore, the method as claimed by applicant as best understood is taught by Acocella et al.

Regarding claim 19, Acocella et al teach that the module 10 is being connected to the PCB or substrate 11 (see Fig. 6).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 11-15 and 20 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Acocella et al.

Regarding claims 11-12, note that the depositing of soldering cream by serigraphy and/or syringe are old and well known in the art. Therefore, it would have been obvious to one ordinary having skill in the art at the time the invention was made to provide the above teaching into the method invention of Acocella et al for various known benefits including for connecting a substrate onto its associated structure such as PCB, etc. Furthermore, it would have been an obvious matter of design choice to deposit soldering cream by a known techniques i.e., by using serigraphy and/or syringe or the like since applicant has not disclosed that these features are critical, patentably distinguishing features and it appears that the invention would perform equally well with

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the screen printing deposit techniques as taught or suggested by the prior art reference (as discussed at col. 4 of Acocella et al).

Regarding claims 13-15 (see paragraph 6j above).

Regarding claim 20, Acocella et al is silent about the size if the interconnection being greater in diameter than the height of the components. It would have been an obvious matter of design choice to make the different portions of the interconnection of whatever form or shape was desired or expedient. Since a change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results. Moreover, it would have been an obvious matter of design choice to make the size of the interconnection to be greater in diameter than the height of the components since applicant has not disclosed that these features are critical, patentably distinguishing features and it appears that the invention would perform equally well with the size configurations as provided by the prior art reference.

Prior Art References

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art references are cited for their teaching of method of manufacturing module interconnection.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (703) 305-2887. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Minh Trinh', followed by a horizontal line.

Minh Trinh 6/24/04
Patent Examiner Group 3729

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